

WHAT IS CLAIMED IS:

1. A front end connector kit for a transmission line connector with first and second threads comprising:

a front connector body with first mating threads adapted to be threadably attached to the first threads of the transmission line connector;

a front shell assembly with second mating threads adapted to be threadably attached to the second threads of the transmission line connector;

an insulator sleeve adapted to fit within the front connector body and electrically isolate the front connector body from the front shell assembly;

the front shell assembly including a front shell including threads for attaching to the transmission line connector and a center conductor mounted within a central axial opening of an insulator;

wherein the insulator is mounted within the front shell and electrically isolates the center conductor from the front shell, and wherein the center conductor extends from a first end of the insulator within the front shell and a second opposing end of the insulator protrudes from the front shell.

2. The front end connector kit of claim 1, wherein the second opposing end of the insulator has a smaller diameter than the first end, and the central axial opening of the insulator includes a tapered portion adjacent the second end of the insulator, the tapered portion larger than the axial channel at the second end, the tapered portion narrowing as it extends toward the first end.

3. The front end connector kit of claim 2, wherein the insulator is a one piece insulator, the smaller inner end of the taper has a smaller diameter than the axial channel and a circular ledge extends partially into the axial channel proximate the inner end of the taper.

4. The front end connector kit of claim 2, wherein the smaller inner end of the taper has a smaller diameter than the axial channel and a circular ledge extends partially into the axial channel proximate the inner end of the taper.

5. A front end connector kit for a transmission line connector with first and second threads comprising:

- a front connector body with first mating threads adapted to be threadably attached to the first threads of the transmission line connector;

- a front shell assembly with second mating threads adapted to be threadably attached to the second threads of the transmission line connector;

- an insulator sleeve adapted to fit within the front connector body and electrically isolate the front connector body from the front shell assembly;

- the front shell assembly including a front shell including threads for attaching to the transmission line connector and a center conductor mounted within a central axial opening of an insulator;

- wherein the insulator is mounted within the front shell and electrically isolates the center conductor from the front shell, wherein the center conductor extends from a first end of the insulator within the front shell and a second opposing end of the insulator has a smaller diameter than the first end, and the central axial opening of the insulator includes a tapered portion adjacent the second end of the insulator, the tapered portion larger than the axial channel at the second end, the tapered portion narrowing as it extends toward the first end.

6. The front end connector kit of claim 5, wherein the insulator is a one piece insulator, the smaller inner end of the taper has a smaller diameter than the axial channel and a circular ledge extends partially into the axial channel proximate the inner end of the taper.

7. The front end connector kit of claim 5, wherein the smaller inner end of the taper has a smaller diameter than the axial channel and a circular ledge extends partially into the axial channel proximate the inner end of the taper.